Application No. 10/620,456
Amendment dated August 10, 2007
Reply to Office Action of May 10, 2007

Docket No.: 4444-0120P

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A memory modeling circuit with fault toleration, comprising:

a compare circuit, used to compare memory data stored in the same address in a plurality of memories, wherein the compare circuit compares at least three data inputs from different memories, wherein if the data inputs are divided into a first kind data and a second kind data and if the count of the first kind data outnumbers that of the second kind data, the compare circuit will output the first kind data; and

a control circuit coupled to said plurality of memories, wherein said control circuit controls said memory data to be read or written from/to said plurality of memories,

wherein said control circuit is able to receive the first kind data from said compare circuit and is unable to receive said memory data from said plurality of memories while said control circuit is in the reading mode.

2. (Previously Presented) The memory modeling circuit according to claim 1, further comprising:

a test circuit, receiving said memory data and the first kind data generated by said compare circuit to generate a testing result.

3. (Previously Presented) The memory modeling circuit according to claim 2, wherein said test circuit further comprises a plurality of sub-test circuits with the same circuit design.

2

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4. (Previously Presented) The memory modeling circuit according to claim 3, wherein said testing result gets an error code and then a faulty memory or a faulty sub-test circuit can be identified according to said error code.

5. (Previously Presented) The memory modeling circuit according to claim 1, wherein said plurality of memories are the same type of memory.

6. (Previously Presented) The memory modeling circuit according to claim 5, wherein said memory is synchronous dynamic random access memory (SDRAM).

7. (Previously Presented) The memory modeling circuit according to claim 1, wherein said compare circuit further comprises a plurality of sub-compare circuits with the same circuit design.

8. (Previously Presented) The memory modeling circuit according to claim 1, wherein said control circuit is unable to receive the first kind data sent from said compare circuit while said control circuit is in the writing mode.

9. (Cancelled)

10. (Currently Amended) A memory modeling circuit with fault toleration, comprising:

3

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a compare circuit, used to receive memory data stored in the same address in a plurality

of memories, wherein the compare circuit compares at least three data inputs from different

memories, wherein if the data inputs are divided into a first kind data and a second kind data and

if the count of the first kind data outnumbers that of the second kind data, the compare circuit

will output the first kind data;

a control circuit connecting said plurality of memories, wherein said control circuit can

enter a writing mode and writes information to the same address in said plurality of memories or

enter a reading mode to load data from said compare circuit; and

a test circuit receiving the memory data stored in the same address in said plurality of

memories and the first kind data generated by said compare circuit to generate a testing result,

wherein said control circuit is able to receive the first kind data from said compare circuit

and is unable to receive said memory data from said plurality of memories while said control

circuit is in the reading mode.

11. (Previously Presented) The memory modeling circuit according to claim 10, wherein

said test circuit further comprises a plurality of sub-test circuits with the same circuit design.

12. (Previously Presented) The memory modeling circuit according to claim 11, wherein

said testing result can identify a faulty memory or a faulty sub-test circuit.

4   KM/ASC/

13. (Previously Presented) The memory modeling circuit according to claim 10, wherein said compare circuit further comprises a plurality of sub-compare circuits with the same circuit design.

14. (Previously Presented) The memory modeling circuit according to claim 10, wherein said testing result gets an error code and then an engineer knows the fault part according to different error code combinations and repairs said fault part to keep the reliability.

15. (Previously Presented) The memory modeling circuit according to claim 10, wherein said plurality of memories are the same type of memory.

16. (Previously Presented) The memory modeling circuit according to claim 15, wherein said memory is synchronous dynamic random access memory (SDRAM).

17. (Previously Presented) The memory modeling circuit according to claim 10, wherein said control circuit is unable to receive the first kind data sent from said compare circuit while said control circuit is in the writing mode.

18. (Cancelled)

5   KM/ASC/